WHAT IS CLAIMED IS:

1. A method for testing a substance for the ability of the substance to ameliorate the toxic-effects of a compound, comprising the steps of:

a) incubating lymphocytes in the presence of the compound and in the presence and absence of the substance; and

b) comparing the toxic-effect of the compound on the lymphocytes incubated in the presence of the substance to the effect of the compound on the lymphocytes in the absence of the substance.

2. The method of claim 1, wherein said lymphocytes are further incubated in a chemically defined medium.

3. The method of claim 1, wherein the toxic-effect of the compound is assessed by assessing its effect on the growth of the lymphocytes.

4. The method of claim 1, wherein the toxic-effect of the compound is assessed by assessing its effect on the cell-size of the lymphocytes.

5. The method of claim 1, wherein the toxic-effect of the compound is assessed by assessing its effect on the morphology of the lymphocytes.

6. The method of claim 1, wherein the toxic-effect of the compound is assessed by assessing its effect on the amount of ATP synthesized by the lymphocytes.

7. The method of claim 6, wherein the amount of ATP synthesized is measured by fluorimetric methods.

8. The method of claim 1, further comprising determining the lowest dosage at which a substance can ameliorate the toxic effect of said compound.

9. The method of claim 1, wherein the compound is a clinical drug, a teratogenic agent, a social drug, a drug additive, a food additive, a food component, an herb, an herbal extract, or a chemical compound.

10. The method of claim 1, wherein the compound is comprised in a plant or a mushroom.

11. The method of claim 9, wherein the clinical drug is a metabolic inhibitor.

12. The method of claim 11, wherein said metabolic inhibitor is a statin.

13. The method of claim 12, wherein said statin is lipitor, mevacor, pravachol, zocor, Baychol, Cerivastatin, or Fluvastatin.

14. The method of claim 9, wherein the clinical drug is a sedative.

15. The method of claim 14, wherein the sedative is diazepam.

16. The method of claim 9, where the clinical drug is a chemotherapeutic agent.

17. The method of claim 16, wherein the chemotherapeutic agent is methotrexate, 5-fluorouracil, doxorubicin, daunorubicin, mitomycin, actinomycin D, bleomycin, plicomycin, taxol, vincristine, vinblastine, cisplatin, VP16, carmustine, melphalan, cyclophosphamide, chlorambucil, busulfan, lomustine, carboplatin, procarbazine, mechlorethamine, camptothecin, ifosfamide, nitrosurea, tamoxifen, raloxifene, estrogen receptor binding agents, gemcitabien, navelbine, farnesyl-protein transferase inhibitors, transplatinum or temazolomide.

18. The method of claim 9, wherein the clinical drug is an anti-inflammatory agent.

19. The method of claim 18, wherein the anti-inflammatory agent comprises salicylate and/or acetyl salicylate.

20. The method of claim 19, where the anti-inflammatory agent is ibuprofen, ketoprofen, piroxicam, naproxen, naproxen sodium, sulindac, aspirin, choline subsalicylate, diflunisal, oxaprozin, diclofenac sodium delayed release, diclofenac potassium immediate release, etodolac, ketorolac, fenoprofen, flurbiprofen, indomethacin, fenamates, meclofenamate, mefenamic acid, nabumetone, oxicam, piroxicam, salsalate, tolmetin, or magnesium salicylate.

21. The method of claim 18, wherein the anti-inflammatory agent comprises a steroid.

22. The method of claim 21, wherein the steroid is dexamethason, hydrocortisone, methylprednisolone, prednisone, triamcinolone.

23. The method of claim 9, wherein the clinical drug is isoniazid.

24. The method of claim 9, wherein the clinical drug is valproic acid.

25. The method of claim 9, wherein the clinical drug is retinol.

26. The method of claim 9, wherein the teratogenic agent is thalidomide.

27. The method of claim 9, wherein the food additive is monosodium glutamate, aspartame or saccharin.

28. The method of claim 9, wherein the chemical compound comprises a metal.

29. The method of claim 28, wherein the metal is aluminum.

30. The method of claim 28, wherein the metal is copper.

31. The method of claim 9, wherein the social drug comprises ethanol, theophylline, caffeine, theobromine.

32. The method of claim 1, wherein the substance is a nutritional supplement, a protein, a peptide, an amino acid, a chemical, a biochemical, a small molecule, or a pharmaceutical agent.

33. The method of claim 1, wherein the substance is LDL.

34. The method of claim 1, further comprising a control comprising:

a) incubating the lymphocytes with a compound with a known toxicity in the presence of a substance known to reverse said known toxicity; and

b) analyzing the effect on lymphocytes.

35. A method for ameliorating toxicity in a patient undergoing therapy with a compound that has a known toxicity comprising, administrating to said patient a substance identified in accordance with the method of claim 1.

36. The method of claim 35, wherein said patient is human patient.

37. A method for ameliorating toxicity in a patient undergoing therapy with a compound that has a known toxicity comprising;

a) isolating lymphocytes from said patient;

b) incubating lymphocytes in the presence of the compound and in the presence and absence of a candidate substance that can reverse the toxicity of said compound;

c) comparing the toxic-effect of the compound on the lymphocytes incubated in the presence of the candidate substance to the effect of the compound on the lymphocytes in the absence of the candidate substance thereby identifying a substance that can reverse toxicity; and

d) administrating to said patient the identified substance that can reverse toxicity of the compound.

38. The method of claim 37, wherein said patient is human patient.

39. A composition comprising one or more factors characterized by the following properties:

a) isolatable from mammalian plasma;

b) containing at least one heat-labile component having a molecular weight of at least 100,000; and

c) having the ability to ameliorate the toxicity of a metabolic inhibitor.

40. The composition of claim 39, wherein the mammalian plasma is human plasma.

41. The composition of claim 39, wherein said metabolic inhibitor is a statin.

42. The composition of claim 41, wherein said statin is lipitor, mevacor, pravachol, zocor, Baychol, Cerivastatin, or Fluvastatin.